

Work Order ID 56120

Page 1

February 10, 2010 1:37:46 PM

Item ID: D205-634-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Replacement Skidtube

Start Date: 2/10/10 Start Qty: 1.00



Cust Item ID:

Required Date: 2/26/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:

H

Date: 10-2-10 Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D2580	Rev D
-------	-------

0.00

100



DOCUMENT CONTROL

DC

Memo

0.00

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG002

Document Control

N/A HJ

110



BENDING MACHINE - SKIDTUBES

0.00

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

)

M10/2/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Run Start



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Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120



Skidtubes

Memo

0.00

Skidtubes

1- Deburr ends

2- C'sink holes as per dwg without cutting fluid

3- Prepare tube for welding, remove alodine as required.

4- Scribe batch number insied aft end of tube.

130



QC

QC5- Inspect part completeness to step on W/O

0.00

S vlor/16

0.00

Quality Control

4/10/16

TH f

W/O:		WORK ORDER CHANGES					
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Run Start



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Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140



Skidtubes

Memo

0.00

Skidtubes

1-Weld step D2576 as per Dwg. D2580 and QSI 004
A/R□□□ Aluminum Rod2-Prep per QSI 005 and weld crossbolt spacers D2579 as per Dwg. D2580, QSI
004.For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill
A/R□□□ Aluminum Rod

3-Grind welds as per Dwg D2580 Grind flush ridge made from bending

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64",
adjust stopper not to hit web.Deburr5-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580.
Deburr holes

6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640"and Deburr

BC 10/02/17

BC 10/02/17
10-2-22MB
10-02-22

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Reference:

Run Start



Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Stop



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Sequence ID/
Work Center ID

150



QC

Quality Control

Operation
Description

QC10- Inspect visual per QSI004- ground welds

Set Up/
Run Hours

0.00

Draw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

S.02/23

160



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

S.02/23

(4)

0.00

170



HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

PAR 02-043

0.00

BL 10-3-1

(1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

180



Powdercoat

Operation
Description

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

M113170

Set Up/
Run Hours

0.00

Draw
Number

Rev.

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Powder Coating

Memo

START TIME: 2:30pm
OVEN TEMPERATURE: 320°f
FINISH TIME: 3:00pm

0.00

BR

10-3-3

D.

190



QC

QC3- Inspect Part Finish

Memo

0.00

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Approvals: Process Plan:

Date: Tooling: Date:

Run Start



QC: Date: SPC (Y/N): Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

200



HandFinish

Memo

0.00

Hand Finishing

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates

A/R Sikaflex-291 112345Sikaflex expire date: 10/08

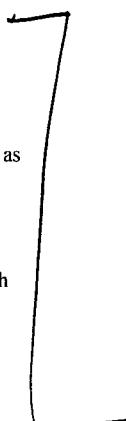
2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive

A/R Sikaflex-291 112345Sikaflex expire date: 10/08

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch: 1113462

10-03-11 *D.*

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop


**Sequence ID/
Work Center ID**
**Operation
Description**
**Set Up/
Run Hours**
**Draw
Number**
**Draw
Rev.**
**Plan
Code**
**Accept
Qty**
**Reject
Qty**
**Reject
Number**
**Insp.
Stamp**

210



QC5- Inspect part completeness to step on W/O

0.00

QC

Memo

0.00

Quality Control

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

S 03/04

220



Packaging

0.00

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD205-634-041

Location: _____

PPP Rev: PPP 54585

Feb 10/3/10 C

230



QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/03/11 HJ

MF
10-3-5

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February 10, 2010 1:37:51 PM

Work Order ID: 56120



Parent Item: D205-634-041



Parent Item Name: Replacement Skidtube

Start Date: 2/10/10

Required Date: 2/26/10

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
D2580-1		Manufactured	No			110	Each	5.0000	1.0000			



205 Skidtube bent detail

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
Main Warehouse		
LG	5	
54541	2	
54697	2	
54721	1	

DP 10-2-11

D2576-3	Manufactured	No	140	Each	141.0000	1.0000
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Step (machining detail)

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
Main Warehouse		
ST	141	
46661	94	
52215	47	

1 02/10/2010

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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Start Date: 2/10/10

Required Date: 2/26/10

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ D2579	Replacement	Mfg/ Manufactured	Bin	Primary No	Last	Route 140	Unit of Each	Qty on 147.0000	Remaining 20.0000	Qty	Date	Status

Crossbolt Spacer



<u>Warehouse</u> <u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
Main Warehouse LG	25	
51525	4	
53780	3	
54543	18	
Main Warehouse ST	122	
43988	4	
46434	4	
46956	2	
47797	9	
48272	2	
51314	71	
51315	30	

856145

(20)

26/02/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Required Date: 2/26/10

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IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ D2855	Replacement Manufactured	Mfg/ Manufactured	Bin No	Primary	Last 200	Route 200	Unit of Each	Qty on 151.0000	Remaining 1.0000	Qty 	Date	Status
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Cap

AN3-5A	Purchased	No	<u>Warehouse</u>		Loc Qty 151	Loc Code 	<u>Location</u>
			Main Warehouse	ST026			
				50513	1		
				50770	1		
				51539	39		
				53791 ✓	110		
Bolt				200	Each	1,773.000	2.0000

AN3-5A	Purchased	No	<u>Warehouse</u>		Loc Qty 1773	Loc Code 	<u>Location</u>
			Main Warehouse	ST			
				100188 ✓	188		
				105057 ✓	1585		

W/O:		WORK ORDER CHANGES					
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IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/ Purchased	Bin	Primary	Last	Route	Unit of Each	Qty on 3,459.000	Remaining 2.0000	Qty	Date	Status
AN960JD10L			No			200						



Washer

ALS7-1032-130



Insert

ALS4-1032-130

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	3459
101291	16
105793	49
110985	3394

2. 10-03-4.

ALS7-1032-130 Purchased No 200 Each 986.0000 50.0000



Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	110511	986
108606	52	
111529	130	
111779	34	
112772	11	
113238	759	

50. 10-03-4.

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/ Purchased	Bin	Primary No	Last	Route	Unit of Each	Qty on 1,263.000	Remaining 50.0000	Qty	Date	Status
AN3C4A						200						



BOLT



AN960C10L



Purchased No

200 Each 388.0000 50.0000



washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

Main Warehouse

ST	1263	
112314	13	
112720	12	
112724	3	
112829	1	
112991	2	
113121	64	
113226	344	
113422	124	
113644	500	
113749	200	

50 bl 10-3-4

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
------------------	----------------	-----------------

Location

OFFSHORE	113937	
FG	103585	
	100	
	100	

50-bl 10-3-4,

Main Warehouse

ST	288	
112116	128	
112612	160	

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IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Gasket

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	81	
53461 ✓	81	1 BR10-3-4
Main Warehouse		
ST	2	
45717	1	
50265	1	
Manufactured	No	200 Each 34.0000 1.0000

D3566-5



Gasket

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP19	30	
55026 ✓	18	
55335	12	
Main Warehouse		
ST	4	
36113	1	
46186	1	
47318	1	
51260	1	

W/O:		WORK ORDER CHANGES					
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Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/ Manufactured	Bin	Primary No	Last	Route	Unit of Each	Qty on 39.0000	Remaining 2.0000	Qty	Date	Status
D3566-1						200						



Gasket

Warehouse Loc Qty Loc CodeLocation

Main Warehouse

FP	34	
52512	3	
54480	1	
55011	3	
55320 ✓	27	

2/10-3-4

Main Warehouse

ST	5	
46349	1	
51218	1	
51259	3	

D3564-11



Manufactured No

200 Each 5.0000 1.0000



Wearshoe

Warehouse Loc Qty Loc CodeLocation

Main Warehouse

FP19 55332

3

1/10-3-4,

52125

3

Main Warehouse

ST

2

45823

1

50112

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 8

February 10, 2010 1:37:51 PM

Work Order ID: 56120



Parent Item: D205-634-041



Parent Item Name: Replacement Skidtube

Start Date: 2/10/10

Required Date: 2/26/10

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ

Start Qty: 1.00

Required Qty: 1.00

IPP Rev:O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Component Item ID/	Replacement	Mfg/	Bin	Primary	Last	Route	Unit of	Qty on	Remaining	Qty	Date	Status
D3564-13		Manufactured	No			200	Each	23.0000	1.0000			



Wearshoe

D3564-9



Wearshoe

Warehouse

Location

Main Warehouse

FP17

Loc Qty

Loc Code

11

1 BK 10-03-4.

51611 ✓

11

Main Warehouse

ST

12

45409

2

46495

10

D3564-9

Manufactured No

Warehouse

Location

Main Warehouse

FP19

Loc Qty

Loc Code

12

1 BK 10-03-4.

55025 ✓

12

Main Warehouse

ST

2

44659

1

45825

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 9

February 10, 2010 1:37:51 PM

Work Order ID: 56120



Parent Item: D205-634-041



Parent Item Name: Replacement Skidtube

Start Date: 2/10/10

Required Date: 2/26/10

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/ Manufactured	Bin	Primary No	Last	Route	Unit of Each	Qty on 44.0000	Remaining 1.0000	Qty	Date	Status
D3564-5						200						



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
OFFSHORE		
FG	2	
34806	2	
Main Warehouse		
FP19	40	
51925	1	
54772✓	13	
55024	12	
55333	14	
Main Warehouse		
ST	2	
45824	1	
47433	1	

100-03-4,

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 10

February 10, 2010 1:37:51 PM

Work Order ID: 56120



Parent Item: D205-634-041



Parent Item Name: Replacement Skidtube

Start Date: 2/10/10

Required Date: 2/26/10

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement	Mfg/ Manufactured	Bin	Primary No	Last	Route	Unit of Each	Qty on 668.0000	Remaining 16.0000	Qty	Date	Status
D2594-3						200						

O-Ring, 205 Skidtube



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	527	
51613 ✓	27	
55546 ✓	500	
Main Warehouse		
ST	141	
52562 ✓	141	

16 6/10-03-4,

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE:-Date & initial all entries

Picklist Print

Page 11

February 10, 2010 1:37:51 PM

Work Order ID: 56120



Parent Item: D205-634-041



Parent Item Name: Replacement Skidtube

Start Date: 2/10/10

Required Date: 2/26/10

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ

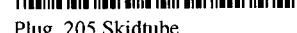
Start Qty: 1.00

Required Qty: 1.00

IPP Rev. O 06.02.28 Added paperwork EC

IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM

Component Item ID/	Replacement	Mfg/ Manufactured	Bin No	Primary	Last	Route	Unit of Each	Qty on 705.0000	Remaining 16.0000	Qty	Date	Status
D2594-1						200						



Plug, 205 Skidtube

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	577	
54008	1	
54643	15	
55002	561	
Main Warehouse		
ST	128	
42221	16	
42807	92	
43884	3	
46435	2	
51527	9	
51757	6	

No Blk 10-03-4.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

DESIGN <i>#</i>	DRAWN BY <i>RH</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>#</i>	APPROVED <i>#</i>	DRAWING NO. D2580		REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY		SCALE NTS
A	96.09.16	NEW ISSUE		
B	96.12.02	AS MANUFACTURED		
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097		
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183		

RELEASED
07.02.28 *#*

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *561201*

GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:
SEE NOTES ON
PAGE 2 FOR D2580-041 AND
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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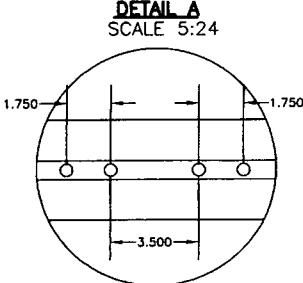
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

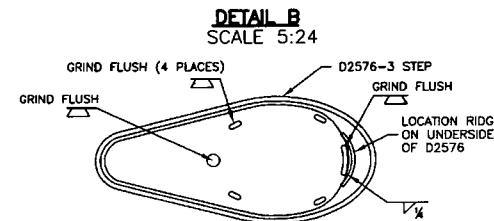
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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

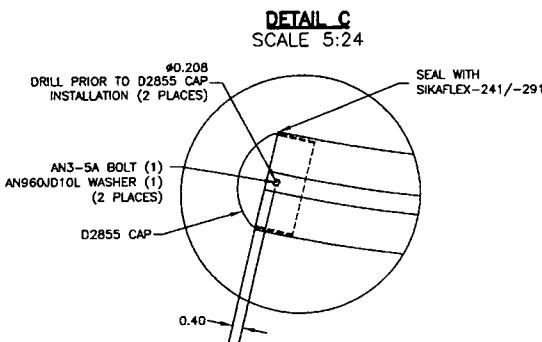


DETAIL A
SCALE 5:24



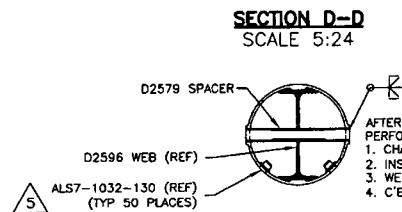
DETAIL B
SCALE 5:24

RELEASED
07-06-28-57



DETAIL C
SCALE 5:24

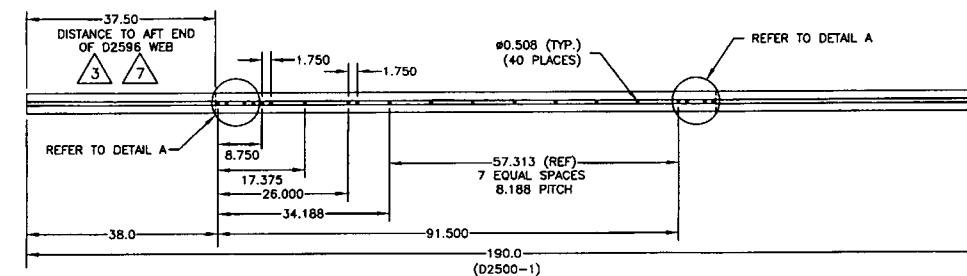
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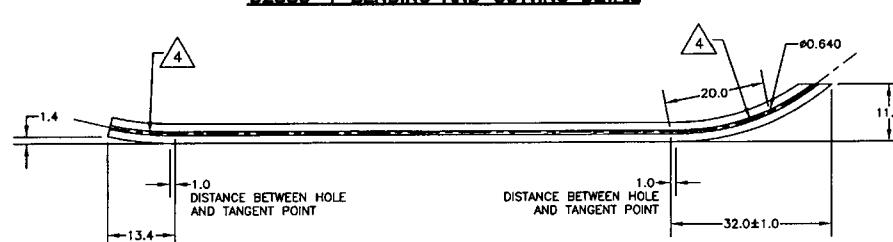
SECTION D-D
SCALE 5:24

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY

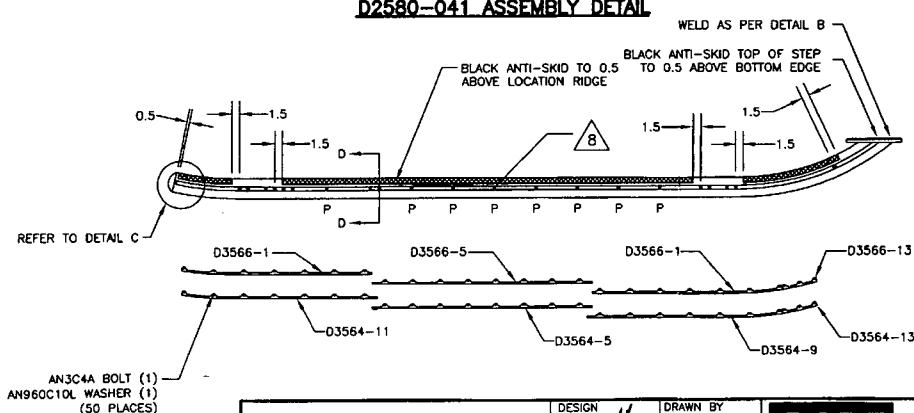
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO 0.437 X 1.00 DEEP



D2580-1 DRILLING DETAIL



D2580-1 BENDING AND CUTTING DETAIL



D2580-041 ASSEMBLY DETAIL

D2580-041 NOTES

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

AN3C4A BOLT
AN960C10L WASHER
(50 PLACE)

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COPYRIGHT © 1996 BY DART AEROSPACE LTD.		DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. SHEET 2 OF	
		DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE 1:2	

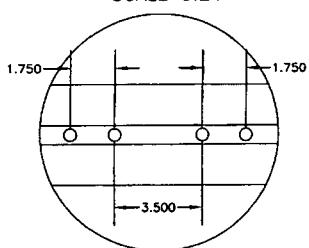
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

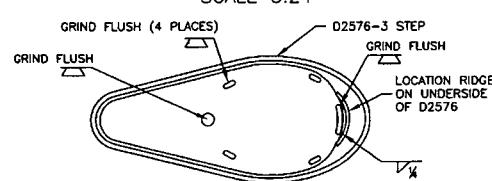
NOTE: Date & initial all entries

DETAIL E
SCALE 5:24

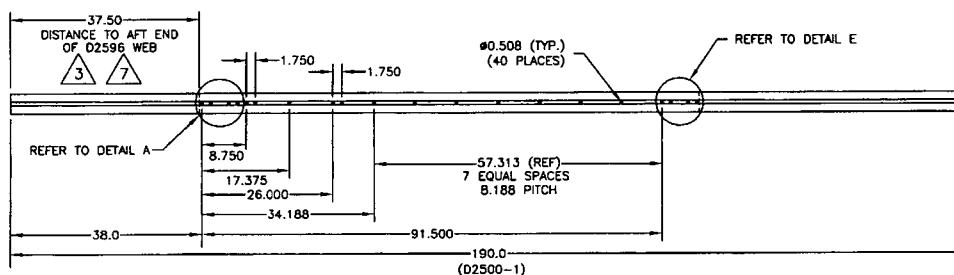


RELEASED
(07/16/20)

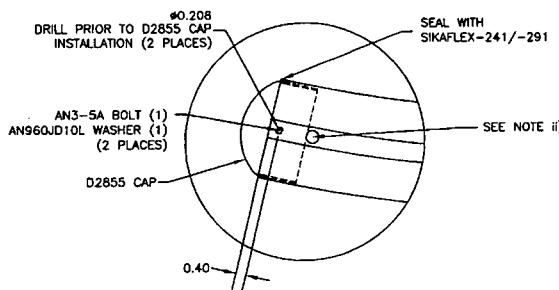
DETAIL F
SCALE 5:24



D2580-1 DRILLING DETAIL

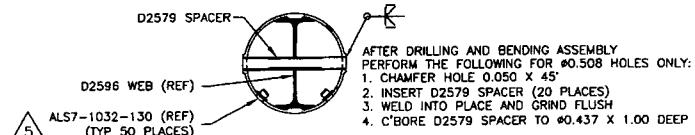


DETAIL G
SCALE 5:24



w/o 56/20

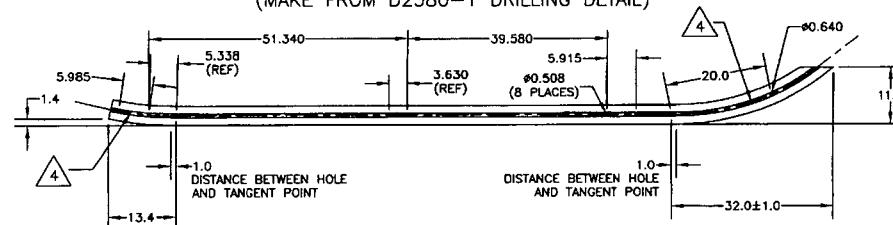
SECTION H-H
SCALE 5:24



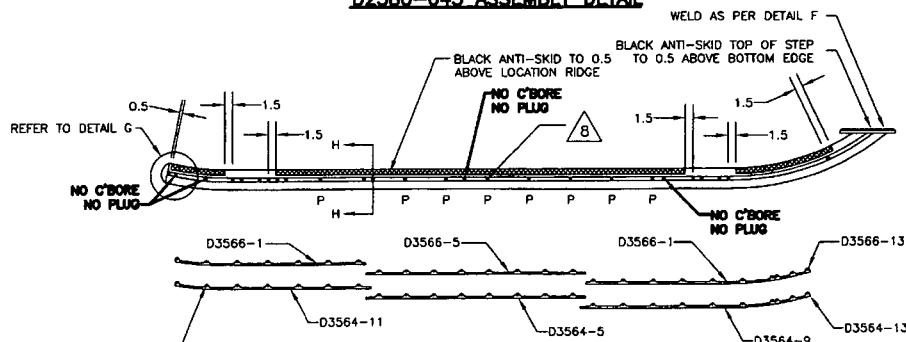
C
D2580-045 NOTES

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE
WITH THE SPACER AT THIS LOCATION

D2580-5 BENDING AND CUTTING DETAIL
(MAKE FROM D2580-1 DRILLING DETAIL)



D2580-045 ASSEMBLY DETAIL



**AN3C4A BOLT (1)
AN960C10L WASHER (1)
(50 PLACES)**

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DESIGN	DRAWN BY	DART	DART AEROSPACE LTD. HAWKSBURY, ONTARIO, CANADA
RH	RH	DART	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO.	D2580
DATE	07.02.27	SHEET 3 OF 3	REV. D
TITLE	205 SKIDTUBE ASSEMBLY	SCALE	1:24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 221

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Berclay Elliott
Job number: 542022
Part number: D205 634 041
Description: 205 skid tube
Welding Process: Tig[] Mig[]
Base materiel: Aluminium
Current: AC[] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[] fail[]
Penetration: pass[] fail[]

UNACCEPTABLE

Cracks: pass[] fail[]
Undercut: pass[] fail[]
Pin holes: pass[] fail[]
Overlap (cold lap) pass[] fail[]
Porosity (surface): pass[] fail[]
Coloration: pass[] fail[]

Qualifier B. Elliott Date of Test Coupon 09.12.17

Welder B. Elliott Date of Test Coupon 09.12.17

The above named individual is qualified in accordance with AWS D17.1.2001 to weld